WHAT IS CLAIMED IS:

1. An information processing terminal comprising:

an execution section containing a plurality of software pieces;

a resource section including at least one resource to be accessed by at least one of the software pieces;

a resource access section for mediating access by the software pieces in the execution section to the at least one resource by using a generic interface for accessing the resource section;

a state of use determination section for determining whether the at least one resource is being currently used or not;

an exploiting-software priority management section for managing a priority level of an exploiting-software piece, wherein the exploiting-software piece is a software piece currently using the at least one resource;

a requesting-software priority acquisition section for acquiring a priority level of a requesting-software piece, wherein the requesting-software piece is a software piece which is making a request to access the at least one resource; and

a conflict determination section for comparing the priority level acquired from the exploiting-software priority management section and the priority level acquired from the requesting-software priority acquisition section, and

determining which one of the exploiting-software piece and the requesting-software piece should be granted access to the at least one resource,

wherein, based on the result of the determination by the state of use determination section and the result of the determination by the conflict determination section, the resource access section is operable to:

(A) if the at least one resource is not being currently used, or if the priority level of the requesting-software piece is higher than the priority level of the exploiting-software piece, access the at least one resource in accordance with the request of the requesting-software piece, and notify an error to the exploiting-software piece, or

(B) if the priority level of the requesting-software piece is lower than the priority level of the exploiting-software piece, notify an error to the requesting-software piece.

2. The information processing terminal according to claim 1, further comprising a software-by-software resource state management section for managing a state of use of the at least one resource with respect to each software piece,

wherein, when receiving a request to access the at least one resource from the execution section,

the resource access section refers to the

software-by-software resource state management section to determine whether the request to access is from a software piece which surrendered the at least one resource during a previous use of the at least one resource, and if so determined, notifies to the software piece that the software piece surrendered the at least one resource during its previous use.

3. The information processing terminal according to claim 1, wherein, if the at least one resource is surrendered from a software piece having a lower priority to a software piece having a higher priority, the resource access section notifies to the surrendering software piece that the resource has been surrendered, and when the resource is later released and the software piece having the lower priority regains access to the resource, the resource access section notifies to the software piece that the resource has been surrendered to another software piece.

4. The information processing terminal according to claim 1, wherein, if the at least one resource is surrendered from a software piece having a lower priority to a software piece having a higher priority, the resource access section cancels any process which is currently being executed by the software piece having the lower priority and thereafter determines whether it is necessary to reset each of the at least one resource, and if

any resource needs to be reset, the resource access section accesses the resource after resetting the resource.

5. The information processing terminal according to claim 4, wherein, if the at least one resource is surrendered from a software piece having a lower priority to a software piece having a higher priority, the resource access section cancels any process which is currently being executed by the software piece having the lower priority, and thereafter determines whether it is necessary to reset each of the at least one resource, and if any resource needs to be reset, the resource access section performs a predetermined reset process which is previously registered by the software piece and thereafter accesses the resource in accordance with a request from the software piece having the higher priority.

6. The information processing terminal according to claim 1, further comprising a software-by-software resource state management section for managing a state of use of the at least one resource with respect to each software piece,

wherein the resource access section performs a reset process for the at least one resource on behalf of a software piece which has once surrendered the resource but regained access to the resource upon release of the resource, the reset process comprising reading from the software-by-software resource state

management section the state of use of the resource which existed when the resource was surrendered and resetting the resource to that state, and thereafter accesses the resource in accordance with a request from the software piece.

7. The information processing terminal according to claim 1, further comprising a decryption section for decrypting priority levels which are obtained from software pieces in an encrypted form,

wherein the determination made by the conflict determination section is based on a result of the decryption by the decryption section.

8. The information processing terminal according to claim 1, wherein the determination made by the conflict determination section is based not only on the priority level assigned to each software piece but also on a priority level which is assigned to each of modules loaded or linked by the software piece.

9. The information processing terminal according to claim 1 further comprising a screen control section for controlling an overlying relationship on a displayed image,

wherein the conflict determination section acquires information concerning an order of image layers of software

pieces from the screen control section, and based on the acquired information, determines the priority levels of the software pieces for accessing the at least one resource.

10. The information processing terminal according to claim 9, wherein, if requests to access the at least one resource are received from a plurality of software pieces having the same priority level, the conflict determination section acquires information concerning an order of image layers of the software pieces from the screen control section, and based on the acquired information, permits the software piece whose image is displayed as a topmost layer to access the resource with priority.

11. An information processing method comprising:

a resource accessing step of mediating access by software pieces to at least one resource included in a resource section by using a generic interface for accessing the resource section;

a state of use determination step of determining whether the at least one resource is being currently used or not;

an exploiting-software priority management step of managing a priority level of an exploiting-software piece, wherein the exploiting-software piece is a software piece currently using the at least one resource;

a requesting-software priority acquisition step of

acquiring a priority level of a requesting-software piece, wherein the requesting-software piece is a software piece which is making a request to access the at least one resource; and

a conflict determination step of comparing the priority level as managed in the exploiting-software priority management step and the priority level as acquired in the requesting-software priority acquisition step, and determining which one of the exploiting-software piece and the requesting-software piece should be granted access to the at least one resource,

wherein, based on the result of the determination of the state of use determination step and the result of the determination of the conflict determination step, the resource accessing step comprises:

(A) if the at least one resource is not being currently used, or if the priority level of the requesting-software piece is higher than the priority level of the exploiting-software piece, accessing the at least one resource in accordance with the request of the requesting-software piece, and notifying an error to the exploiting-software piece, or

(B) if the priority level of the requesting-software piece is lower than the priority level of the exploiting-software piece, notifying an error to the requesting-software piece.

12. The information processing method according to claim 11, further comprising a software-by-software resource state management step of managing a state of use of the at least one resource with respect to each software piece,

wherein the resource access step comprises:

performing a reset process for the at least one resource on behalf of a software piece which has once surrendered the resource but regained access to the resource upon release of the resource, the reset process comprising reading the state of use of the resource, as managed in the software-by-software resource state management step, which existed when the resource was surrendered, and resetting the resource to that state; and

thereafter accessing the resource in accordance with a request from the software piece.

13. The information processing method according to claim 11, wherein the conflict determination step comprises:

acquiring information concerning an order of image layers of software pieces from a screen control section for controlling an overlying relationship on a displayed image; and

based on the acquired information, determining the priority levels of the software pieces for accessing the at least one resource.

14. The information processing method according to

claim 13, wherein the conflict determination step comprises, if requests to access the at least one resource are received from a plurality of software pieces having the same priority level:

acquiring information concerning an order of image layers of the software pieces from the screen control section; and

based on the acquired information, permitting the software piece whose image is displayed as a topmost layer to access the resource with priority.